

## ACADEMY

## Newsletter

CALIFORNIA  
ACADEMY OF SCIENCES

MAR 2 1995

LIBRARY

## MEMBERS MEETING



Stephen Cunha

## THE SIERRA NEVADA

HUMAN-ENVIRONMENTAL  
IMPACT

with Stephen Cunha • Wednesday, April 19\* • 2 p.m. &amp; 7:30 p.m.

Through contemporary and archival photography, geographer and former Yosemite ranger Stephen Cunha will provide a "then and now" perspective on human use and alteration of California's beautiful Sierra Nevada mountain range. Cunha will acquaint us with its discoverer, Franciscan missionary Pedro Font, who first noted some 200 years ago "una gran sierra nevada" from a hillside above Suisun Bay. He'll present the impact of human-environmental change from the Spaniard's perspective since its discovery in 1776.

Cunha, chair and instructor of geography at Cosumnes River College in Sacramento, will introduce the principle geographic features of the range

and its aboriginal groups. He'll follow a lively procession of explorers, immigrants, miners, loggers, water seekers and recreation enthusiasts who have collectively altered the natural environment in ways both large and small. Finally, he'll explore current efforts to reconcile development and conservation in a mountain setting now within easy reach of 35 million people.

\*Please note: lecture is on third Wednesday instead of the usual second Wednesday.

Please present your membership card at the Academy's entrance and again at the auditorium. This members meeting is provided as a benefit of membership and thus is only open to members of the Academy.

### Sierra Nevada Biodiversity Two-Day Symposium

Explore the Richness and Role of its Wild Species

The Sierra Nevada mountain range provides beautiful scenery and recreation areas, but human intrusion has impacted the ecological health of this area. To enhance understanding of this region's ecology, the Academy, the Sierra Biodiversity Institute and the National Biological Service, will present a weekend symposium Apr. 29-30, 9 a.m. to 4:30 p.m.

The program, for which U.S. Secretary of the Interior Bruce Babbitt is tentatively scheduled to deliver the keynote address, is designed to appeal to resource managers, public policy makers, scientists and the general public.



Stephen Cunha

The first sessions will focus on how the biota of an area affects physical changes in the ecosystem, such as precipitation, soil acidity, nutrient availability and rock formation; the biogeographic history of the area; and the interactions between different plant and animal populations. Later presentations will address the different endemic populations that contribute to the overall ecological health; and the diversity of plant life, fungi, aquatic invertebrates, mammals, reptiles and amphibians, soil invertebrates, insects and birds.

*Ticket prices for one day are \$10 for members and \$15 for nonmembers; for both days the cost is \$15 for members and \$25 for nonmembers. To purchase tickets use the order form on back, or call 750-7112 with ticketing questions. For more information about the symposium, call 750-7351 (or write via e-mail at pdalporto@cas.calacademy.org).*

### GEM AND MINERAL HALL REOPENS

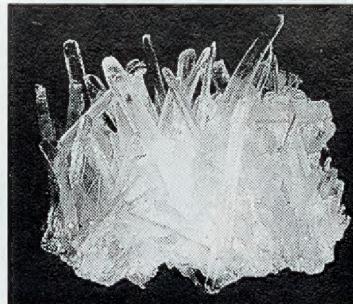
Gem and Mineral Hall is being reopened in early April after seismic upgrade and a minor facelift. The hall features minerals and gems in their raw, uncut form and many examples of the polished stones that jewelers have come to know and love.

Mineral Hall explains the chemical composition, structural elements, optical properties and formation processes of these

natural, inorganic substances. Systematics cases at the back of the hall explain the related-

ness between the stones. But the science doesn't occlude the natural beauty of this exhibit — arching windows cast sparkle on a massive formation of gypsum and a 1,350-pound quartz crystal, and displays show off the colors and forms of earth in the raw.

The Gem Room explains how these more precious and pure forms of minerals are cut and polished to adorn fingers and necks everywhere. The famous works of the Buccellati family will be featured here in May.



## Free Weekend Shuttle to Music Concourse

**A**void weekend traffic in Golden Gate Park by taking a free Saturday and Sunday shuttle to the Academy. The shuttle, which will be on a trial basis, is a joint effort with the de Young Museum to alleviate parking congestion.

The shuttle will run from the UCSF staff parking garage to the Music Concourse every 10 minutes from 9:30 a.m. to 5:30 p.m. There is a \$3 fee for all-day parking in the garage, but the shuttle is *free*. Enter the UCSF staff parking lot from Irving, where Arguello and Carl streets converge.

If you must drive to the park, remember there is a \$1/hour charge to park in the Music Concourse parking lot on weekends and holidays (parking is free on weekdays and on the surrounding roads). On Sundays Kennedy Drive is closed to traffic from Kezar Drive to Crossover Drive and the only entrance to the Music Concourse is from Lincoln Way on the south side of the park.

For information on taking public transportation please call our recorded information system, 750-7145, or MUNI at 673-6864.

## TRADITIONAL ARTS



### Songs of the British Isles

Allan Macleod, a native of Scotland, and Dick Holdstock, from the south of England, present songs and instrumental music that reflect their British roots, including rousing sea shanties and haunting ballads.

Sat., Apr. 1 — 1 p.m. to 2 p.m. (Auditorium)

### Persian Dance

Shahrzad Khorsandi performs Persian Miniature Dance, a classical dance form characterized by graceful and refined movements. This genre expresses the aesthetic and emotional qualities of Persian miniature paintings based on the work of 16th century poet Omar Khayam.

Sat., Apr. 22 — 1 p.m. to 2 p.m. (Auditorium)

### European Folk Songs

The duo Telynor performs an eclectic blend of traditional and contemporary arrangements of Medieval and Renaissance folk songs from European sources, on hurdy gurdy, mandolin, cittern, bodhran, fiddle and guitar.

Sat., Apr. 29 — 1 p.m. to 2 p.m. (Auditorium)

Explore cultural traditions from around the world. Free after general admission. Call 750-7164, for more information.

## ADULT AND FAMILY EDUCATION

### San Francisco Bay Cruise

Leaving from Pier 39 with instructor Gary Holloway, we'll explore the highly urbanized shoreline of San Francisco, seeing the many changes that have taken place, and then view Marin County.

We'll discover the industrial waterfront of Contra Costa County and the extensive landfill that created the waterfronts of Albany, Berkeley and Oakland. At Treasure Island, we'll discuss the potential uses of this former military base.

May 20 — 10 a.m. to 2 p.m.  
Cost: \$49 members/\$59 nonmembers

For more information, contact the adult and family education program at 750-7100.

### Photographer Galen Rowell & Science Writer John Gribbin, Speak at the Herbst Theatre

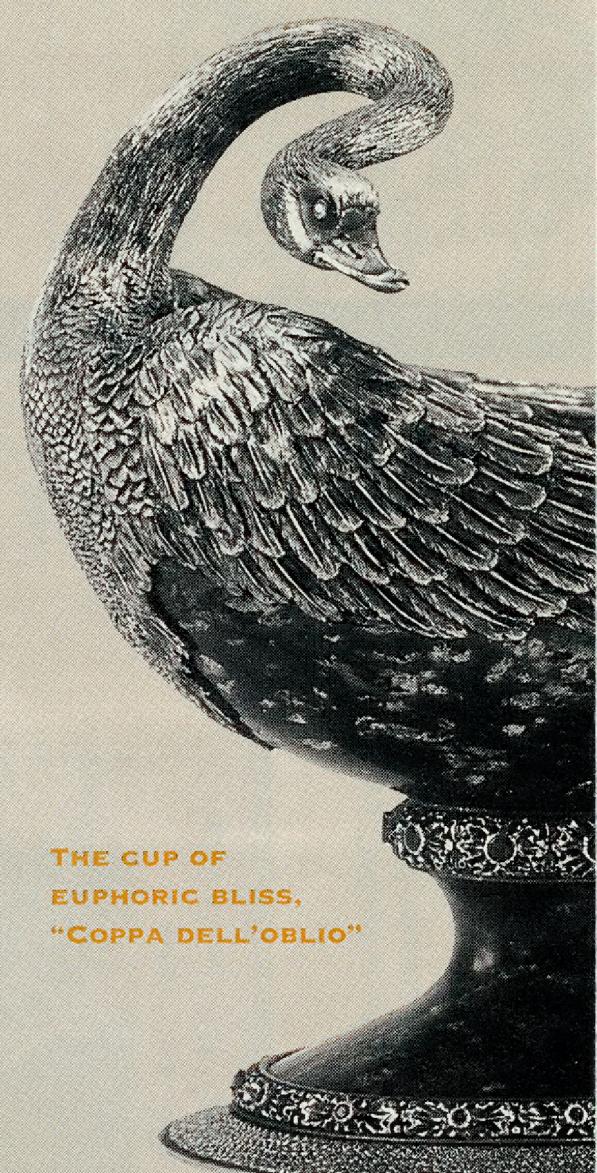
A pioneer of a special brand of participatory landscape photography, Galen Rowell captures unique moments in nature in his well-known book *Mountain Light*. He is presented in conversation with Joe Brennan, Monday, Apr. 3.

John Gribbin is one of the world's leading science writers and astrophysicists. His best-selling works deal with the implications of quantum physics for our understanding of reality, the nature of life and the origin of the universe. Author of *In Search of Schrödinger's Cat* (the sequel, *Schrödinger's Kittens*, will be published this spring), he is presented in conversation with Rusty Schweickart, Tuesday, Apr. 25.

A continuation of the Academy's Conversations and Readings at the Herbst Theatre seven-part series, presentations are at 8 p.m. at the Herbst Theatre (400 Van Ness Avenue). To order tickets, \$12 members/\$15 nonmembers, call City Box Office at 392-4400.

## Buccellati Artis Gemston

A New Exhibit, May 1 — 25



THE CUP OF EUPHORIC BLISS,  
"COPPA DELL'OBLO"

The spirit of the Renaissance at the Academy when the Buccellati goldsmiths and jewelers of Milan, Italy display their lapidary the Academy's newly renovated Gold and Mineral Hall.

The twists of gold and glimmer the essence of the Italian Renaissance and French Rococo periods. Chalices and candlesticks exemplify the in



LOUIS XV CANDLESTICKS

Exhibit Sponsored by

MORRISON P

### Free Day Planetarium Shows

**Current Sky Shows:** For free day, the first Wednesday of the month when general Academy admission is free to all, the planetarium is joining in the generous spirit by offering a free music concert at 5 p.m. (for those age 6 and older). This presentation will feature classical music combined with planetarium special effects for a truly unique experience. The planetarium also offers an expanded sky show schedule on free days, with shows at 11 a.m., 12:30 p.m., 2 p.m., 3:30 p.m. and 6 p.m., at the regular sky show prices.

#### April Schedule

Sky Show / Description	weekday	weekend
<b>Realm of the Galaxies</b> / the secrets they hold	2 p.m.	2 & 4 p.m.
<b>Extremes</b> / cosmic record holders	—	1 & 3 p.m.
<b>StarTalk</b> / tour of the night sky	—	noon
<b>Touch the Stars</b> / a family show	—	11 a.m.

For more information, call 750-7141.

# ellati: try in es & Gold

4 through Sept. 4



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used in this art work will give  
a glimpse of the earth's natural  
before they are sculpted, carved  
shed.

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## PLANETARIUM



### Creation of the Universe

**B. Dean Lecture:** Since the light we observe from distant galaxies has traveled for billions of years, our views of them give us a look into the past. Most of the universe, however, is dark. Technology has allowed scientists to determine the gravitational footprint of this dark matter, which indicates density fluctuations occurred early in the universe's development. Recent discoveries of changes in this cosmic microwave background is proving to be the missing link relating these differences to dark matter in the universe.

Dr. Joseph Silk, from the Center for Particle Astrophysics at the University of California Berkeley, will examine the current issues of evolution on a grand scale, from the genesis of matter to the birth and death of galaxies and stars.

A book-signing of Silk's most recent books will follow the lecture.

Mon., Apr. 18 — 7:30 p.m.; Tickets \$2 each\*

\* The Spring '95 Benjamin Dean Lecture Series concludes with Dr. Sherwood Chang, NASA-Ames Research Center, May 23. \* Use order form to purchase tickets. Tickets may be available at the door on a standby basis. Call 750-7141, for more information.

## Celebrate Earth!

*Family Activity Days for  
Earth Day and National Science  
and Technology Week*

**J**oin in the family fun and say Happy Birthday Earth! when the California Academy of Sciences sponsors educational activities, especially for the 10-year-old and under crowd, in association with National Science and Technology Week (NSTW).

Hands-on workshops are presented the weekend of April 22 and 23, 11 a.m. to 4 p.m. in Cowell Hall to coincide with the 25th anniversary of Earth Day. At the Sound Station children can see sound waves and make sound boxes from recycled objects. They'll make happy birthday Earth cards and design their own space ships from recycled materials at Recycling Roundup. At the Composting Corner, children can get acquainted with an earthworm and learn how to compost at home.

The Academy is proud to have been selected as one of 47 regional partners nationwide for NSTW teacher training and dissemination network. As part of these activities we are offering teacher training workshops, a conference for local high schools to promote careers in science and public events. The goal of these programs is to encourage students, teachers, families and the general public to discover first-hand the excitement of exploration and discovery.

Apr. 22 & 23 — 11 a.m.  
to 4 p.m.



## YOUNG AUDIENCES

### American History — Where Were the Women?

Enjoy a fascinating collection of stories and original songs about remarkable women by the talented singing duo McLaren and Flowers. The program looks at each decade beginning in the 1940s to answer the historical question of "where were the women?"

Sun., Apr. 23 — 1 p.m.

This family series is presented in the auditorium and is free after general admission. Call 863-1719, for more information.



Irene Young

## SPECIAL LECTURES

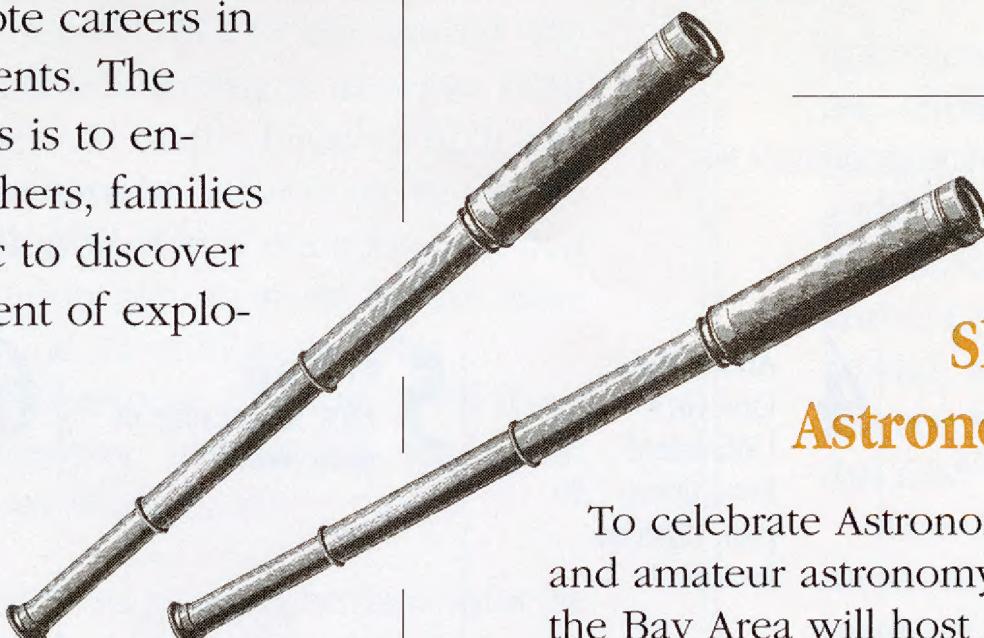
### About Time: Einstein's Unfinished Revolution

Einstein's theory of relativity brought many changes to our understanding of time, but a full understanding of this topic remains elusive. Join Dr. Paul Davies of the University of Adelaide for this fascinating lecture all about time. A book-signing will follow the presentation.

Tues., Apr. 4 — 7:30 p.m.  
\$6 members/\$8 nonmembers

**Whale Lecture Cancelled:** Regrettably, Dr. Bruce Mate's lecture on Apr. 17 on radio tagging whales has been cancelled. If you've already ordered tickets, a refund will arrive by mail shortly.

Special lectures are presented in the auditorium. Use order form for tickets. For more information, call 750-7128.



### Telescopes Point Skyward for Astronomy Day

To celebrate Astronomy Day, the planetarium and amateur astronomy groups from throughout the Bay Area will host displays and family activities Saturday, May 6 from 10 a.m. to 5 p.m. in Cowell Hall.

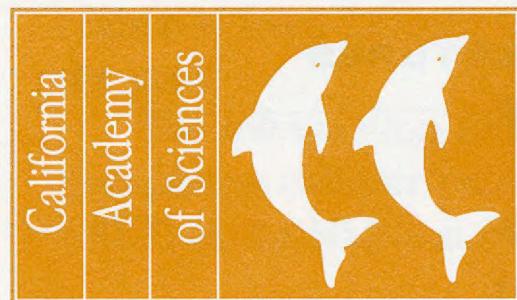
The Academy's Science In Action interns will offer 30-minute presentations on space and astronomy at 12:30 p.m. and 3 p.m. Weather permitting, there will be safe solar viewing in the courtyard during the day and free telescope observations of the heavens from 7 p.m. to 10 p.m. in front of the Academy's Hume Observatory. Visitors will enjoy astronomy-related activities, such as astronomical computer software, a solar system model, on-going videos, telescopes and more throughout the day.

Astronomy Day was founded in 1973 by the Astronomical Association of Northern California and Doug Berger, a well-known amateur astronomer who donated a 17-inch reflecting telescope to the Academy's Hume Observatory. For more information about the day's activities, please call 750-7127.

May 6 — 10 a.m. to 5 p.m. & 7 p.m. to 10 p.m.

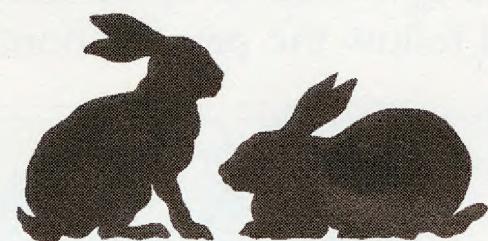
California Academy of Sciences  
Golden Gate Park  
San Francisco, CA 94118

Address Correction Requested



The Academy includes the  
Natural History Museum,  
Steinhart Aquarium and Morrison  
Planetarium. Open every day  
from 10 a.m. to 5 p.m. July 4-abor  
Day we're open until 7 p.m.

THE  
ACADEMY  
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**VISITOR SERVICES**  
Academy Information: 415-750-7145  
Academy Store: 750-7410

Admissions: 750-7159  
Aquarium: 750-7247  
Biodiversity Center: 750-7361  
Development Office: 750-7216  
Docent Tours: 750-7155  
Education Office: 750-7100  
Group Information: 750-7043  
Job Hotline: 750-7333  
Laserium: 750-7138  
Lectures: 750-7128  
Library: 750-7102  
Membership Office: 750-7111  
Planetarium: 750-7141  
Planned Giving: 750-7216  
Security: 750-7000  
Switchboard: 221-5100  
Travel: 750-7348  
Volunteer Services: 750-7154  
Weekend Information: 750-7375

To order tickets for Galen Rowell, John Gribbin and Elizabeth Marshall Thomas,  
please call City Arts & Lectures at 392-4400.  
**DONATIONS**  
I would like to support the Academy with a donation.  
**TOTAL PAYMENT ENCLOSED** \$

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Include a self-addressed, stamped envelope for each series to which you subscribe.  
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<b>SPECIAL LECTURES</b>		<b>Qty/Mem.</b>	<b>Qty/Nonmem.</b>	<b>Total</b>
About Time: Einstein's Unfinished Revolution / Apr. 4		<input type="text"/> x \$ 6	<input type="text"/> x \$ 8	<input type="text"/> = <input type="text"/>
		<b>TOTAL \$</b> <input type="text"/>		
<b>PLANETARIUM'S B. DEAN LECTURE SERIES</b>		<b>Quantity</b>	<b>Total</b>	
Creation of the Universe / Apr. 18 Dr. Sherwood Chang / May 23		<input type="text"/> x \$2	<input type="text"/> x \$2	<input type="text"/> = <input type="text"/>
		<b>TOTAL \$</b> <input type="text"/>		
<b>SIERRA NEVADA BIODIVERSITY SYMPOSIUM</b>		<b>Qty/Mem.</b>	<b>Qty/Nonmem.</b>	<b>Total</b>
Sierra Nevada Biodiversity: Exploring the Richness and Functional Role of its Wild Species / Apr. 29-30		<input type="text"/> x \$10	<input type="text"/> x \$15	<input type="text"/> = <input type="text"/>
one day both days		<input type="text"/> x \$15	<input type="text"/> x \$25	<input type="text"/> = <input type="text"/>
		<b>TOTAL \$</b> <input type="text"/>		
<b>ACADEMY CONVERSATIONS &amp; READINGS AT THE HERBST THEATRE</b>				
To order tickets for Galen Rowell, John Gribbin and Elizabeth Marshall Thomas, please call City Arts & Lectures at 392-4400.		\$		
		<b>DONATIONS</b>		
I would like to support the Academy with a donation.		\$		
		<b>TOTAL PAYMENT ENCLOSED</b> \$		

**H**op on in to the Academy Store and create a festive Easter basket with a colorful array of marble and painted eggs, floral Easter tins, and a great assortment of plush chick and bunny toys.

APRIL

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	<b>SPECIAL EXHIBITS</b> Witness: Endangered Species of North America, through May 14 Birds of a Feather, extended showing Hands on Science, extended showing				<b>SCIENCE IN ACTION</b> General programs Sun.-Fri. at 11 a.m. Children's programs Sat. at 12:30 & 3 p.m.; this month's topic is a celebration of <i>Forests</i>	
2	3 Galen Rowell, 8 p.m. (Conversations at the Herbst Theatre)	4 About Time: Einstein's Unfinished Revolution, 7:30 p.m. (Special Lectures)	5 <b>Free Day</b> First Wednesday of each month	6 <b>LASERIUM SHOWS</b> Thursday-Sunday, evenings, call 750-7138	7 <b>PLANETARIUM SKY SHOWS</b> on weekdays at 2 p.m.	1 Songs of the British Isles, 1 p.m. (Traditional Arts) 
9 "Life on the Edge: Preserving Our Coastal Wetlands" exhibit closes	10 <b>MEMBERS</b> please bring your membership card when you visit the Academy	12 <b>PENGUIN FEEDINGS</b> are at 11:30 a.m. and 4 p.m. every day	13	14	15 "WITNESS" exhibit has been extended through May 14	
16	17	18 Creation of the Universe, 7:30 p.m. (Planetarium Lecture)	19 The Sierra Nevada: Human- Environmental Impact, 2 p.m. & 7:30 p.m. (Members Meeting)	20 Wild America, 6:30 p.m. (Academy Ball)	21 National Science and Technology Week, Apr. 21-29	22 Persian Dance, 1 p.m. (Trad. Arts) Celebrate Earth! Family Days, 11 a.m. to 4 p.m.
23 Celebrate Earth! Family Days, 11 a.m. to 4 p.m. Where Were the Women?, 1 p.m. (Young Audiences)	24 <b>PLANETARIUM SKY SHOWS</b> on weekends at 11 a.m., and at noon, 1, 2, 3 and 4 p.m.	25 John Gribbin, 8 p.m. (Conversations at the Herbst Theatre)	26 <b>DOLPHIN FEEDINGS</b> are at 10:30 a.m., and 12:30, 2:30 and 4:30 p.m. every day	27	28	29 European Folk Songs, 1 p.m. (Traditional Arts) Sierra Nevada Biodiversity Symposium, 9 a.m. to 4:30 p.m.
30 Sierra Nevada Biodiversity Symposium, 9 a.m. to 4:30 p.m.						
<b>MAY DATES TO REMEMBER</b> May 4 - "Buccellati: Artistry in Gemstones and Gold" new exhibit opens May 6 - Astronomy Day (Planetarium) May 18 - Elizabeth Marshall Thomas (Conversations at the Herbst Theatre)						
<b>UPCOMING MEMBERS MEETINGS</b> May 10 - Open House for Members June 14 - Gems and Jewels, with Larry French July 12 - Dancing to the Fossil Record, with Ray Troll & Brad Matsen						